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(54) ANTI-JAM APPARATUS FOR BASEBAND RADAR SYSTEMS

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G01S 7/021; H01P 5/12
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See application file for complete search history.

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(57) ABSTRACT

A filter which highly attenuates CW signals within specified frequency bands while allowing baseband pulses to pass therethrough with relatively low attenuation is provided. The filter comprises a main transmission line and stub transmission lines that are coupled in parallel relationship with the main transmission line. Each of the stub transmission lines is terminated with a short circuit or other appropriate impedance and is of such a length that a pulse coupled thereto from the main transmission line and reflected from the terminating impedance will arrive at the coupling plane with the main transmission line after the pulse propagating on the main transmission line has completely passed the coupling plane, thus eliminating the possibility of cancellation of any portion of the propagating pulse. The length, spacing and terminating impedance of each of the stub transmission lines is selected to provide stop bands for CW signals so that a pulse is coupled to the output terminals of the filter that is substantially free of CW interfering signals that may exist at the input terminals thereof.

7 Claims, 2 Drawing Sheets

